

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

# Alignment View Print

seq1	1 . . . . . 10	. . . . . 20	. . . . . 30
seq25	C C T T C T C C	G G C C C T T C C C	C T C G G C T T T G
Consensus	A A A A A A A A A A	A A A A A A A A A A	A A A A A A A A A A
seq1	. . . . . 40	. . . . . 50	. . . . . 60
seq25	C C T G G C G C	T C C T G C C T C C	C G C G G G C C C
Consensus	A A A A A A A A A A	A A A A A A A A A A	A A A A A A A A A A
seq1	. . . . . 70	. . . . . 80	. . . . . 90
seq25	A C C T G T G T C C	C C C G C G C C C G	C T C C C C C C G
Consensus	A A A A A A A A A A	A A A A A A A A A A	A A A A A A A A A A
seq1	. . . . . 100	. . . . . 110	. . . . . 120
seq25	C G G C C T G G	C C C C T C T C T G	C T G C C G A C
Consensus	A A A A A A A A A A	A A A A A A A A A A	A A A A A A A A A A
seq1	. . . . . 130	. . . . . 140	. . . . . 150
seq25	C C C C C T G C T G	C C C C T C T C C C	T G C T G C T C G G
Consensus	A A A A A A A A A A	A A A A A A A A A A	A A A A A A A A A A
seq1	. . . . . 160	. . . . . 170	. . . . . 180
seq25	G T T C T G G G C	A C G C C T T G T C	V C C C G G G C
Consensus	A A A A A A A A A A	A A A A A A A A A A	A A A A A A A A A A
seq1	. . . . . 190	. . . . . 200	. . . . . 210
seq25	G G T T C T C T T	T C T C T T T C T C	T T C T G G C C C
Consensus	A A A A A A A A A A	A A A A A A A A A A	A A A A A A A A A A

# Alignment View Print

seq1 seq25	<div> <div>.....220</div> <div>C G C C C C C</div> </div>	<div> <div>.....230</div> <div>T G C C C T C</div> </div>	<div> <div>.....240</div> <div>G T T C C T C T C</div> </div>
Consensus	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>
seq1 seq25	<div> <div>.....250</div> <div>C T G G G E T T C</div> </div>	<div> <div>.....260</div> <div>T C C T G C T G C</div> </div>	<div> <div>.....270</div> <div>T G G C T T C C C G</div> </div>
Consensus	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>
seq1 seq25	<div> <div>.....280</div> <div>G C T G C C C G C T</div> </div>	<div> <div>.....290</div> <div>C T G G C C T G</div> </div>	<div> <div>.....300</div> <div>G G C C T G G G C</div> </div>
Consensus	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>
seq1 seq25	<div> <div>.....310</div> <div>C T C C T G G G</div> </div>	<div> <div>.....320</div> <div>C T G G G G G C C T</div> </div>	<div> <div>.....330</div> <div>C C T C C C T G G</div> </div>
Consensus	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>
seq1 seq25	<div> <div>.....340</div> <div>G T C C C C C C</div> </div>	<div> <div>.....350</div> <div>C G C C G C</div> </div>	<div> <div>.....360</div> <div>G T C T T G G C</div> </div>
Consensus	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>
seq1 seq25	<div> <div>.....370</div> <div>T G G T G C T G T</div> </div>	<div> <div>.....380</div> <div>T C T C C C T T C</div> </div>	<div> <div>.....390</div> <div>C T G G G G C C C</div> </div>
Consensus	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>
seq1 seq25	<div> <div>.....400</div> <div>C C T G C T C G C</div> </div>	<div> <div>.....410</div> <div>C C C G C T C T C</div> </div>	<div> <div>.....420</div> <div>C C G T C C T G C</div> </div>
Consensus	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>	<div> <div>.....</div> <div>.....</div> </div>



## Alignment View Print

	430	440	450
seq1			
seq25			
Consensus			
	460	470	480
seq1			
seq25			
Consensus			
	490	500	510
seq1			
seq25			
Consensus			
	520	530	540
seq1			
seq25			
Consensus			
	550	560	570
seq1			
seq25			
Consensus			
	580	590	600
seq1			
seq25			
Consensus			
	610	620	630
seq1			
seq25			
Consensus			

# Alignment View Print

	640	650	660
seq1	C C C C C C	C C C C T T T T	C C C C C C C C
seq25	C C C C C C	C C C C T T T T	C C T T C C C C
Consensus	C C C C C C	C C C C T T T T	C C T T C C C C
	670	680	690
seq1	C C C C C C	C T C C T C C T	C C C C
seq25	C C C C C C	C T C C T C C T	C C C C
Consensus	C C C C C C	C T C C T C C T	C C C C
	700	710	720
seq1	C C C C C C	C C C C T C C C	C C T T C C C C
seq25	C C C C C C	C C C C T C C C	C C T T C C C C
Consensus	C C C C C C	C C C C T C C C	C C T T C C C C
	730	740	750
seq1	C C T C C C C C	C C C C C C C C	C T C C C C C C
seq25	C C T C C C C C	C C C C C C C C	C T C C C C C C
Consensus	C C T C C C C C	C C C C C C C C	C T C C C C C C
	760	770	780
seq1	C C C C C C C C	C C C C C C C C	C C C T C T C T C
seq25	C C C C C C C C	C C C C C C C C	C C C T C T C T C
Consensus	C C C C C C C C	C C C C C C C C	C C C T C T C T C
	790	800	810
seq1	C C C C C C C C	C C C C C C C C	T T C T C T C C C
seq25	C C C C C C C C	C C C C C C C C	T T C T C T C C C
Consensus	C C C C C C C C	C C C C C C C C	T T C T C T C C C
	820	830	840
seq1	T C C C C C C T	C C C C C C C T	C C C C C C C C
seq25	T C C C C C C T	C C C C C C C T	C C C C C C C C
Consensus	T C C C C C C T	C C C C C C C T	C C C C C C C C





# Alignment View Print

	850	860	870
seq1	C C T C C	C T C C T C	C C C C C
seq25	C C T C C	C T C C T C	C C C C C
Consensus	C C T C C	C T C C T C	C C C C C
	880	890	900
seq1	C C T C C C	C C C C T C C	C C T C C T T
seq25	C C T C C C	C C C C T C C	C C T C C T T
Consensus	C C T C C C	C C C C T C C	C C T C C T T
	910	920	930
seq1	C C T C C T T T C T	C T C C C C C C	C T C C T C T C C
seq25	C C T C C T T T C T	C T C C C C C C	C T C C T C T C C
Consensus	C C T C C T T T C T	C T C C C C C C	C T C C T C T C C
	940	950	960
seq1	T C T T C T T T C	C T C C C C C C	C C C C T C T C
seq25	T C T T C T T T C	C T C C C C C C	C C C C T C T C
Consensus	T C T T C T T T C	C T C C C C C C	C C C C T C T C
	970	980	990
seq1	T T C T C T C	C C C C C C C	C C C C C C T C
seq25	T T C T C T C	C C C C C C C	C C C C C C T C
Consensus	T T C T C T C	C C C C C C C	C C C C C C T C
	1000	1010	1020
seq1	T C T C T C	C C T C C T C C	T C C C T C C C
seq25	T C T C T C	C C T C C T C C	T C C C T C C C
Consensus	T C T C T C	C C T C C T C C	T C C C T C C C
	1030	1040	1050
seq1	C C C C C	C C C C C	C C T C C C C
seq25	C C C C C	C C C C C	C C T C C C C
Consensus	C C C C C	C C C C C	C C T C C C C



# Alignment View Print

		1060		1070		1080										
seq1	C	G	T	C	T	T	G	G	C	C	C	T	C	C	G	
seq25	C	G	T	C	T	T	G	G	C	C	C	T	C	C	G	
Consensus	C	G	T	C	T	T	G	G	C	C	C	T	C	C	G	
		1090		1100		1110										
seq1	C	G	T	C	C	C	C	G	G	T	G	G	C	C	C	
seq25	C	G	T	C	C	C	C	G	G	T	G	G	C	C	C	
Consensus	C	G	T	C	C	C	C	G	G	T	G	G	C	C	C	
		1120		1130		1140										
seq1	T	C	C	C	T	C	T	T	C	C	C	C	C	C	C	
seq25	T	C	C	C	T	C	T	T	C	C	C	C	C	C	C	
Consensus	T	C	C	C	T	C	T	T	C	C	C	C	C	C	C	
		1150		1160		1170										
seq1	C	T	G	C	C	C	C	C	C	C	C	C	C	C	C	
seq25	C	T	G	C	C	C	C	C	C	C	C	C	C	C	C	
Consensus	C	T	G	C	C	C	C	C	C	C	C	C	C	C	C	
		1180		1190		1200										
seq1	A	G	G	T	C	C	T	G	G	G	C	C	G	C	C	G
seq25	A	G	G	T	C	C	T	G	G	G	C	C	G	C	C	G
Consensus	A	G	G	T	C	C	T	G	G	G	C	C	G	C	C	G
		1210		1220		1230										
seq1	G	G	C	T	G	T	C	C	C	C	T	G	C	C	G	C
seq25	G	G	C	T	G	T	C	C	C	C	T	G	C	C	G	C
Consensus	G	G	C	T	G	T	C	C	C	C	T	G	C	C	G	C
		1240		1250		1260										
seq1	C	C	C	G	C	G	C	T	T	G	G	C	C	C	T	C
seq25	C	C	C	G	C	G	C	T	T	G	G	C	C	C	T	C
Consensus	C	C	C	G	C	G	C	T	T	G	G	C	C	C	T	C



# Alignment View Print

seq1	1270	1280	1290
seq25			
Consensus			
seq1	1300	1310	1320
seq25			
Consensus			
seq1	1330	1340	1350
seq25			
Consensus			
seq1	1360	1370	1380
seq25			
Consensus			
seq1	1390	1400	1410
seq25			
Consensus			
seq1	1420	1430	1440
seq25			
Consensus			
seq1	1450	1460	1470
seq25			
Consensus			





# Alignment View Print

seq1	.....1480	.....1490	.....1500
seq25	CCCCCCTC	TCTCCCGCTC	TCTCTCTCT
Consensus	.....	.....	.....
seq1	.....1510	.....1520	.....1530
seq25	CCCTCC	CCCGCCC	CCCGCCCTGC
Consensus	.....	.....	.....
seq1	.....1540	.....1550	.....1560
seq25	CTCCGCC	AGCGCTCGCT	CGCTTCCCTC
Consensus	.....	.....	.....
seq1	.....1570	.....1580	.....1590
seq25	CCTCTCTCTC	TTTCTGGCT	CCCTCTCGC
Consensus	.....	.....	.....
seq1	.....1600	.....1610	.....1620
seq25	CTGATTTT	CTTATTCG	TTTCTTTCC
Consensus	.....	.....	.....
seq1	.....1630	.....1640	.....1650
seq25	CTCCTCTCT	TCTTTTCTC	CTCTCTCT
Consensus	.....	.....	.....
seq1	.....1660	.....1670	.....1680
seq25	CTTTTGGGG	GTCTCTCTC	GGGCTCTCT
Consensus	.....	.....	.....



# Alignment View Print

	.....1690.....1700.....1710
seq1	T T C T T C T T T C T C C T C
seq25	
Consensus	
	.....1720.....1730.....1740
seq1	
seq25	
Consensus	

